APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,365	01/21/2004	Kenichiro Tada	8048-1036	9841

			EXAMINER
466	7590	08/04/2006	LE, DIEU-MINH T

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ART UNIT	PAPER NUMBER
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DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 May 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-5,8,9,11 and 13-17</u> is/are rejected.

7)☒ Claim(s) <u>6,7,10 and 12</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>21 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Part III DETAILED ACTION

Specification

1.   This Office Action is in response to the application
10/760,365 filed on 01/21/2004.

2.   Claims 1-17 are presented for examination.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which
forms the basis for all obviousness rejections set forth in this
Office action:

(a) A patent may not be obtained though the invention is not
identically disclosed or described as set forth in section 102
of this title, if the differences between the subject matter
sought to be patented and the prior art are such that the
subject matter as a whole would have been obvious at the time
the invention was made to a person having ordinary skill in the
art to which said subject matter pertains. Patentability shall
not be negatived by the manner in which the invention was made.

4.   This application currently names joint inventors.   In

considering patentability of the claims under 35 U.S.C. 103(a),

the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered

therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to

point out the inventor and invention dates of each claim that

was not commonly owned at the time a later invention was made in

order for the examiner to consider the applicability of 35

U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior

art under 35 U.S.C. 103(a).

5.   Claims 1-5, 8-9, 11, 13-17 are rejected under 35

U.S.C. 103(a) as being unpatentable over Kuroda et al. (U.S.

6,611,902 hereafter referred to as Kuroda) in view of Dinker et

al. (U.S. 2003/0131041 hereafter referred to as Dinker).

As per claim 1:

     Kuroda substantially teach the invention. Kuroda teaches:

     - An information processing apparatus [abstract, fig. 1,

     col. 1, lines 1-11]; comprising:

- a first memory device for storing a first program

including a command to execute other programs [fig. 1, col.

2, lines 18-42 and col. 3, lines 30-53];

- a second memory device for storing a second program to

perform a predetermined processing in accordance with the

command in the first program [fig. 1, col. 2, lines 18-42

and col. 3, lines 30-53];

- third memory device for storing a backup program for the

second program [col. 2, lines 5-10; col. 11, lines 1-59];

- a first selection device for selecting either one of the

second program and the backup program, as a program to be

executed in accordance with the command in the first

program (i.e., **_fail-over process)_** [abstract, fig. 1, col.3,

lines 54 through col. 4, lines 15 and col. 8, lines 50-67].

Kuroda does not explicitly address:

- a fourth memory device for storing a first state

information to substantially indicate that the second

program does not properly perform the predetermined

processing.

However, Kuroda does disclose capability of:

- An information processing method comprising a plurality

of memory storage areas having program and backup program

[abstract, fig. 1-6, col. 2, lines 5-10 and col. 12, lines

15-25] comprising:

- a data connectivity among processor, plurality of memory

areas, selection means, switching means, etc... [fig. 1,

col. 5, lines 30-58].

- **_a program restoration means used to execute a "program_**

restoration process" (i.e., state information) in

supporting the information processing and/or fault-tolerant

fail-over process [fig. 1, col. 7, lines 58 through col. 8,

lines 10].

In addition, Dinker explicitly teaches:

- A data processing system and method having first and

second memories, and backup service [abstract, fig. 1, col.

9, claims 1-2] comprising:

- a **_state information_** resided memory device used in

supporting the failover process [col. 2, par. 0015; col. 5,

par. 0067 and 0072; col. 9, claim 2].

Therefore, it would have been obvious to a person having

ordinary skill in the art at the time of Applicant's invention

to first realizing Kuroda's **a program restoration means used to**

execute a "program restoration process" (i.e., **state**

information) in supporting the information processing and/or

fault-tolerant fail-over process as being the fourth memory

device for storing a first state information as claimed by

Applicant. This is because Kuroda's data processing /fault

tolerant system explicitly performed data failure detection and

recovery via plurality of program resided within plurality of

memory area process or means (i.e., failover process). By

utilizing these capabilities, the computer data processing

system can be directed or redirected promptly and functioned

properly during failover switching process in supporting the

network operation via its memory program and state information

function; second, by applying the **state information** resided

memory device used in supporting the failover process as taught

by Dinker in conjunction with the information processing method

comprising a plurality of memory storage areas having program

and backup program as taught by Kuroda, the primary process

within fault tolerant networking system including backup

capability (i.e., failover) can enhance its operation

performance, more specifically to ensuring the error detected,

corrected, and replaced (i.e., backup) in proper and efficient

manner via its state information functionality.

This modification would have been obvious because a person

having ordinary skill in the art would have been motivated to do

so to improve the data processing, failover, and/or fault-

tolerant system operation availability and network/system

performance therein with a mechanism to enhance the data

connectivity, data debugging, data reliability, and data

throughput which eventually will increase its performance, such

as data throughput between internal and external devices.

As per claim 2:

Kuroda further teaches:

- a first selection device is embodied with a command in

the first program (i.e., **_fail-over process)_** [abstract, fig.

1, col.3, lines 54 through col. 4, lines 15 and col. 8,

lines 50-67].

- **_a program restoration means used to execute a "program_**

restoration process" (i.e., state information) in

supporting the information processing and/or fault-tolerant

fail-over process [fig. 1, col. 7, lines 58 through col. 8,

lines 10].

In addition, Dinker explicitly teaches:

- A data processing system and method having first and
second memories, and backup service [abstract, fig. 1, col.
9, claims 1-2] comprising:

- a **_state information_** resided memory device used in
supporting the failover process [col. 2, par. 0015; col. 5,
par. 0067 and 0072; col. 9, claim 2].

As per claims 3-5:

Kuroda further teaches:

- An information processing apparatus [abstract, fig. 1,
col. 1, lines 1-11]; comprising:

- a first memory device for storing a first program
including a command to execute other programs [fig. 1, col.
2, lines 18-42 and col. 3, lines 30-53];

- a second memory device for storing a second program to
perform a predetermined processing in accordance with the
command in the first program [fig. 1, col. 2, lines 18-42
and col. 3, lines 30-53];

- third memory device for storing a backup program for the
second program [col. 2, lines 5-10; col. 11, lines 1-59];

Kuroda does not explicitly address:

- first and second state information.

However, Kuroda does disclose capability of:

- An information processing method comprising a plurality

of memory storage areas having program and backup program

[abstract, fig. 1-6, col. 2, lines 5-10 and col. 12, lines

15-25] comprising:

- a data connectivity among processor, plurality of memory

areas, selection means, switching means, etc… [fig. 1,

col. 5, lines 30-58].

- ***a program restoration means used to execute a "program***

restoration process" (i.e., state information) in

supporting the information processing and/or fault-tolerant

fail-over process [fig. 1, col. 7, lines 58 through col. 8,

lines 10].

In addition, Dinker explicitly teaches:

- A data processing system and method having first and

second memories, and backup service [abstract, fig. 1, col.

9, claims 1-2] comprising:

- a ***state information*** resided memory device used in

supporting the failover process [col. 2, par. 0015; col. 5,

par. 0067 and 0072; col. 9, claim 2].

Therefore, it would have been obvious to a person having

ordinary skill in the art at the time of Applicant's invention

to first realizing Kuroda's *a program restoration means used to*

execute a "program restoration process" (i.e., state

information) in supporting the information processing and/or

fault-tolerant fail-over process as being the fourth memory

device for storing a first state information as claimed by

Applicant. This is because Kuroda's data processing /fault

tolerant system explicitly performed data failure detection and

recovery via plurality of program resided within plurality of

memory area process or means (i.e., failover process). By

utilizing these capabilities, the computer data processing

system can be directed or redirected promptly and functioned

properly during failover switching process in supporting the

network operation via its memory program and state information

function; second, by applying the state information *resided*

memory device used in supporting the failover process as taught

by Dinker in conjunction with the information processing method

comprising a plurality of memory storage areas having program

and backup program as taught by Kuroda, the primary process

within fault tolerant networking system including backup

capability (i.e., failover) can enhance its operation

performance, more specifically to ensuring the error detected,

corrected, and replaced (i.e., backup) in proper and efficient

manner via its state information functionality.

This modification would have been obvious because a person

having ordinary skill in the art would have been motivated to do

so to improve the data processing system operation availability

and memory/system performance.

As per claims 8-9:

Kuroda further teaches:

- an update device for updating the second program; and a

backup device for storing the second program, as the backup

program, that is not still updated with said update device,

into said third memory device [fig. 1, col. 3, lines 5-15

and col. 4, lines 15-26];

- update device receives a new second program that is

supplied via a communication network, and replaces the

existing second program with the new second program [fig.

1, col. 5, lines 59 through col. 6, lines 22].

In addition, Dinker explicitly teaches:

- a ***state information*** resided memory device used in

supporting the failover process [col. 2, par. 0015; col. 5,

par. 0067 and 0072; col. 9, claim 2].

- an update device for updating the second program; and a

backup device for storing the second program, as the backup

program, that is not still updated with said update device,

into said third memory device [col. 2, par. 0015-0016];

- update device receives a new second program that is

supplied via a communication network, and replaces the

existing second program with the new second program [col.

9, par. 0146].

As per claim 11:

Kuroda further teaches:

- a first notice (i.e., **_indicator_**) device for generating a

notice information to substantially indicate that the

backup program is selected [fig. 1, col. 5, lines 59

through col. 6, lines 22].

As per claim 13:

Kuroda further teaches:

- first state information is a flag [fig. 1, col. 10, lines

    44-49; col. 12, lines 25-30].

As per claim 14-15:

Kuroda further teaches:

- a first notice (i.e., **_indicator_**) device for generating a

notice information to substantially

- first program includes a boot loader (i.e., **_restart_**

program and downloading for updating program) program.

  [col. 7, lines 45-67; col. 11, lines 57-59];

- second program includes an operating system (i.e.,

executing program) program.

  [fig. 1, col. 2, lines 43-50 and col. 5, lines 29-36];

In addition, Dinker explicitly teaches:

- A data processing system and method having first and

second memories, and backup service [abstract, fig. 1, col.

9, claims 1-2] comprising:

- a **_state information_** resided memory device used in

supporting the failover process [col. 2, par. 0015; col. 5,

par. 0067 and 0072; col. 9, claim 2].

<u>As per claim 16:</u>

This claim is the same as per claim 1. The only minor

different is that this claim is directed to a **computer program**

product in a computer-readable medium instead of the information

processing apparatus comprising of first, second, third memory,

etc… as described in claim 1. However, it would have been

obvious to one having ordinary skill in the art at the time the

invention was made to realize that the **computer program product**

in a computer-readable medium is a necessary item for such data

memory processing networking system, more specifically, data

communication and processing among memory devices. Since the

memory processing system obviously needs a means for instruction

or code means resided within the machine-readable storage medium

for performing the data storing, receiving, transmitting

operation via the backup and state information capabilities.

Therefore, this claim is also rejected under the same rationale

applied against claim 1.

As per claim 17:

     Due to the similarity of claim 17 to claim 1 except for an

information processing **method** comprising first program, second

program, backup program, first state information, second state

information, etc… instead of the information processing

apparatus comprising first program, second program, backup

program, first state information, second state information,

etc…; therefore, this claim is also rejected under the same

rationale applied against claim 1. **In addition, all of the**

limitations have been noted in the rejection as per claim 1.

Allowable Subject Matter

6.   Claims 6-7, 10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8.   A shortened statutory period for response to this action is set to expired THREE (3) months, ZERO days from the date of this letter.   Failure to respond within the period for response will cause the application to be abandoned. 35 U.S.C. 133.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (571) 272-3660.   The examiner can normally be reached on Monday - Thursday from 8:30 AM to 5:00 PM.

      If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571)272-3644.   The Tech Center 2100 phone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER
ART UNIT 2114

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